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Digital technology saves division time, money



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By Gail Kulhavy
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TINKER AIR FORCE BASE, Okla. (AFMCNS) – Transferring paper technical orders to a compact disc is moving Tinker's B-1B System Support Management Division toward a paperless environment and saving about \$500,000 in printing costs each year in the process.

Working in partnership with Boeing, the division created a CD library where technical orders can now be accessed on a laptop or stand-alone machine, said Ron Stanberry, technical data specialist.

Each time a B-1B is deployed, one or more support planes accompany it, usually C-135s or C-5s, loaded with test equipment, spare parts and technical orders, Stanberry said. Before the CD library, the aircraft's TOs fit into a single container six feet tall, six feet long and four feet deep, weighing about 1,700 pounds.

"You've now replaced the need for this 1,700 pounds and this space on the accompanying aircraft no longer has to be used for paper," said Stanberry. "It can be used for parts, more equipment or whatever they need, depending on the mission."

While Boeing and other contractors actually transfer the technical order information to CD, division members manage all aspects of the TOs including viability of the information, ensuring user-friendly processes and estimating cost and budget.

"This process saves the Air Force time and money with a potential to save even more," said Pat Norris, logistics management specialist. "We have one book that costs about \$15,000 to print, put together and mail, but [it costs] about \$490 to put on CD and distribute. We figure there's a potential to save about 80 percent of the current cost of publishing, or more than \$500,000 a year.

"Right now, we have more than 200 B-1B TOs digitized," he continued. "We're working to have every B-1 TO digitized; but over time, every TO across the ALC

will be digitized."

Digitized technical orders can be updated and accessed more easily, according to Norris.

"Changes also become easier because it's also almost instantaneous through the phone line," said Norris. "This sometimes saves us more than a week."

Norris said there have been numerous reports generated discussing the differences between paper and CD work processes.

"The U.S. Navy's Office of Training Technology reported that '...maintenance technicians using a computer-based electronic document with artificial intelligence assistance on troubleshooting completed tasks in less than half the time it took with paper manuals," he said. "Even novices, using the electronic job aid, could troubleshoot 12 percent faster than experienced technicians using paper manuals.' That's pretty phenomenal."

"We went to McConnell Air Force Base, [Kan.], and took an airman fresh out of basic training who had never seen a digital TO in his life," Stanberry said. "We sat him down at a computer in front of his colonel and master sergeant and within five minutes he was searching the database for his part. He found the part number, the stock number, a diagram of where the part is on the aircraft and a picture of the part and sent the order to supply."

According to Cloyce Franks, integrated logistics support manager for Boeing, this method of digitization allows for instant page flipping through hyperlinks.

"You just hop around wherever you need to go - any graphic, page or table," he said. "Anyone in the field can find a part number, go to the diagram, see placement on the airplane, and then flip to a picture of it and back to a stock number - instead of six manuals, you're just flipping through data."

"Our aim is that the fellow using the information finds it absolutely easy and takes no time to access the information," Franks said.

According to Norris, there are already about eight B-1B technical order families digitized. A family is the term used for all TOs such as Job Guides and Wiring Diagram Manuals, supporting crew communications or aircraft ground handling and safety, which are digitized and then put on one CD.

"Every TO that gets digitized makes it that much better for the Air Force," Norris said. "Our goal for B-1B digital data is to obtain approval from the Air Combat Command to allow the field to move to a 'paperless' environment on selected TOs by July 1, 2001."

CUTLINE:

Air Force photo by Margo Wright

B1-B System Support Management Division personnel, from left, Ron Stanberry, Debbie Cerda and Catherine Johnson, a Boeing contractor, review technical orders on compact discs. A lightweight disc can hold all the information shown stacked on the right with room to spare.

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This document was last modified May 16, 2001